Complete Summary

TITLE

Stroke and stroke rehabilitation: percentage of patients aged 18 years and older with a diagnosis of ischemic stroke or TIA or intracranial hemorrhage undergoing CT or MRI of the brain within 24 hours of arrival at the hospital whose final report of the CT or MRI includes documentation of the presence or absence of each of the following: hemorrhage and mass lesion and acute infarction.

SOURCE(S)

American Academy of Neurology, American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Stroke and stroke rehabilitation physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Sep. 19 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients aged 18 years and older with the diagnosis of ischemic stroke or transient ischemic attack (TIA) or intracranial hemorrhage undergoing computed tomography (CT) or magnetic resonance imaging (MRI) of the brain within 24 hours of arrival at the hospital whose final report of the CT or MRI includes documentation of the presence or absence of each of the following: hemorrhage **and** mass lesion **and** acute infarction.

RATIONALE

The computed tomography (CT) and magnetic resonance imaging (MRI) findings are critical to initiating care for the patient with stroke. All CT and MRI reports should address the presence or absence of these three important findings. This documentation is particularly vital in the report of the first imaging study performed after arrival at the hospital, on which initial treatment decisions will be based.*

*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

Brain imaging is required to guide acute intervention. (Grade A) There is a uniform agreement that CT accurately identifies most cases of intracranial hemorrhage and helps discriminate nonvascular causes of neurological symptoms (e.g., brain tumor). With the advent of rtPA treatment, interest has grown in using CT to identify subtle, early signs of ischemic brain injury (early infarct signs) or arterial occlusion that might affect decisions about treatment. The presence of these signs is associated with poor outcomes. (American Stroke Association [ASA])

A technically adequate head CT scan is required prior to administration of thrombolytic therapy to exclude brain hemorrhage and nonischemic diagnoses. The baseline CT scan is also sensitive for detection of early signs of cerebral infarction. Subtle or limited signs of early infarction on the CT scan are common even within the first 3 h of stroke evolution. Preliminary data suggest that specific MRI profiles may identify patients who are particularly likely to benefit from thrombolytic therapy. New MRI techniques including perfusion-weighted and diffusion-weighted may detect ischemic injury in the first hour and may reveal the extent of reversible and irreversible injury. In addition, MRI appears to be highly sensitive for identification of acute brain hemorrhage. (American College of Chest Physicians [ACCP])

PRIMARY CLINICAL COMPONENT

Ischemic stroke; transient ischemic attack (TIA); intracranial hemorrhage; computed tomography (CT) or magnetic resonance imaging (MRI) of the brain; hemorrhage; mass lesion; acute infarction

DENOMINATOR DESCRIPTION

All patients aged 18 years and older with the admitting diagnosis of ischemic stroke or transient ischemic attack (TIA) or intracranial hemorrhage undergoing computed tomography (CT) or magnetic resonance imaging (MRI) of the brain within 24 hours of arrival at the hospital

NUMERATOR DESCRIPTION

Patients whose final report of the initial computed tomography (CT) or magnetic resonance imaging (MRI) includes documentation of the presence or absence of each of the following: hemorrhage **and** mass lesion **and** acute infarction

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- Antithrombotic and thrombolytic therapy for ischemic stroke: the Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy.

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance

EVIDENCE SUPPORTING NEED FOR THE MEASURE

McGlynn EA, Asch SM, Adams J, Keesey J, Hicks J, DeCristofaro A, Kerr EA. The quality of health care delivered to adults in the United States. N Engl J Med2003 Jun 26;348(26):2635-45. PubMed

Thom T, Haase N, Rosamond W, Howard VJ, Rumsfeld J, Manolio T, Zheng ZJ, Flegal K, O'Donnell C, Kittner S, Lloyd-Jones D, Goff DC Jr, Hong Y, Adams R, Friday G, Furie K, Gorelick P, Kissela B, Marler J, Meigs J, Roger V, Sidney S, Sorlie P, Steinberger J, Wasserthiel-Smoller S, Wilson M, Wolf P. Heart disease and stroke statistics--2006 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Circulation2006 Feb 14;113(6):e85-151. PubMed

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement
National reporting

Application of Measure in its Current Use

CARE SETTING

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients aged 18 years and older with the admitting diagnosis of ischemic stroke or transient ischemic attack (TIA) or intracranial hemorrhage undergoing computed tomography (CT) or magnetic resonance imaging (MRI) of the brain within 24 hours of arrival at the hospital

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients aged 18 years and older with the admitting diagnosis of ischemic stroke or transient ischemic attack (TIA) or intracranial hemorrhage undergoing computed tomography (CT) or magnetic resonance imaging (MRI) of the brain within 24 hours of arrival at the hospital

Exclusions
None

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Diagnostic Evaluation
Institutionalization

DENOMINATOR TIME WINDOW

Time window is a fixed period of time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Patients whose final report of the initial computed tomography (CT) or magnetic resonance imaging (MRI) includes documentation of the presence or absence of each of the following: hemorrhage **and** mass lesion **and** acute infarction

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Institutionalization

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Measure #8: computed tomography (CT) or magnetic resonance imaging (MRI) reports.

MEASURE COLLECTION

The Physician Consortium for Performance Improvement® Measurement Sets

MEASURE SET NAME

Stroke and Stroke Rehabilitation Physician Performance Measurement Set

SUBMITTER

American Medical Association on behalf of the American Academy of Neurology, American College of Radiology, the National Committee for Quality Assurance, and the Physician Consortium for Performance Improvement®

DEVELOPER

American Academy of Neurology
American College of Radiology
National Committee for Quality Assurance
Physician Consortium for Performance Improvement®

FUNDING SOURCE(S)

Unspecified

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FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

ENDORSER

National Quality Forum

INCLUDED IN

Ambulatory Care Quality Alliance
Physician Quality Reporting Initiative

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2006 Sep

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

American Academy of Neurology, American College of Radiology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Stroke and stroke rehabilitation physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Sep. 19 p.

MEASURE AVAILABILITY

The individual measure, "Measure #8: Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) Reports," is published in the "Stroke and Stroke Rehabilitation: Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on September 13, 2007. The information was verified by the measure developer on October 26, 2007.

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Date Modified: 11/3/2008